

Technical Document

2007 Utah Facility Comparison Report on Gallbladder Removal for Adult Inpatients and Outpatients

**Office of Health Care Statistics
Health Data Committee
Utah Department of Health
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Introduction

Mandates for Publishing Utah Health Care Consumer's Reports:

Utah Senate Bill 132, titled "Health Care Consumer's Report," passed by the 2005 Utah Legislature, requires the Health Data Committee (HDC) to report health facility performance annually for consumers. The public consumer reports shall use nationally recognized quality and patient safety standards and facility charges for conditions or procedures. In December 2005, the HDC began to publish a series of hospital comparison reports on facility charges, quality and patient safety.

Purpose of the Technical Documentation:

This technical documentation is one of a series of publications to provide technical information and methodological explanations on the Utah Health Care Consumer's Reports. Audience for this publication includes facility personnel, health professionals, health data analysts and other interested professionals.

The Health Data Committee

Chapter 33a, Title 26, Utah Code Annotated established the thirteen-member Utah Health Data Committee. In accordance with the act, the committee's purpose is—

"to direct a statewide effort to collect, analyze, and distribute health care data to facilitate the promotion and accessibility of quality and cost-effective health care and also to facilitate interaction among those with concern for health care issues."

The SB132 Health Care Consumer's Report Task Force

The Health Data Committee established the SB 132 Health Care Consumer's Report Task Force in 2005. The SB132 Task Force is a technical advisory group that provides consultation to the Utah Health Data Committee and its staff members in the Office of Health Care Statistics on measures, methods, and priorities for developing Health Care Consumer's Reports and related web reporting system.

Data Source

The Facility Discharge Database

The data source for the Utah health care consumers' reports is the statewide facility discharge database. Administrative Rule R428-10, titled "Health Data Authority, Hospital Inpatient Reporting Rule," mandates that all Utah licensed facilities, both general acute care and specialty, report information on inpatient discharges. In this report, facilities include facilities and ambulatory surgery centers. Since 1992, all facilities have reported "discharge data" for each inpatient served. "Discharge data" means the consolidation of complete billing, medical, and demographic information describing a patient, the services received and charges billed for each inpatient facility stay. Discharge data records are submitted to the office quarterly. The data elements are based on discharges occurring in a calendar quarter.

Method of Reporting Charges

Use of APR-DRG, "All-patient Refined (APR)-Diagnosis Related Group (DRG)"

The APR-DRG, "All-patient Refined (APR)-Diagnosis Related Group (DRG)," classification system is used in the Utah healthcare consumer's reports to categorize discharge records into different diseases/conditions groups of patients.

☐ Diagnosis Related Group (DRG)

The DRGs were developed for the Health Care Financing Administration as a patient classification scheme which provides a means of relating the type of patients a facility treats (i.e., its case mix) to the costs incurred by the facility. While all patients are unique, groups of patients have common demographic, diagnostic and therapeutic attributes that determine their resource needs. All patient classification schemes capitalize on these commonalities and utilize the same principle of grouping patients by common characteristics.

The use of DRGs as the basic unit of payment for Medicare patients represents a recognition of the fundamental role a facility's "sicker" patients play in determining resource usage and costs, at least on average. "The DRGs, as they are now defined, form a manageable, clinically coherent set of patient classes that relate a facility's case mix to the resource demands and associated costs experienced by the hospital." (*Diagnosis Related Groups, Seventh Rev., Definitions Manual*, page 15.)

Each discharge in the Utah Hospital Discharge Database was assigned into a DRG based on the principal diagnosis, secondary diagnoses, surgical procedures, age, sex, and discharge status of the patient.

☐ All-patient Refined (APR)-DRG and Patient Severity Level

APR-DRG stands for All Patient Refined Diagnosis Related Group, software widely used in health services research. The APR-DRG software organizes about 20,000 clinical diagnoses and procedures into about 300 groups. Each inpatient is assigned a single APR-DRG that reflects the most complex care that the inpatient received and the most facility resources used to care for the inpatient. Note that outpatients are not assigned an APR-DRG.

APR-DRGs cluster inpatients into mutually exclusive, hierarchical groups. An inpatient may not belong to more than one APR-DRG. For example, if a gallbladder removal inpatient started with a laparoscopic gallbladder removal which became an open gallbladder removal, that inpatient would be assigned APR-DRG 262 (Cholecystectomy Except Laparoscopic), not APR-DRG 263 (Laparoscopic Cholecystectomy).

Each APR-DRG has four severity of illness levels. In the consumer reports, we use "Patient Severity Level" to group inpatients into one of two groups. The severity of illness and risk of mortality subclasses have levels of 1 to 4, indicating minor, moderate, major, and extreme, respectively. In the consumer reports, patients who are assigned a minor or moderate level of severity of illness are in the Minor/Moderate group, and inpatients who are assigned a major or extreme level of severity of illness are in the Major/Extreme group. Inpatients whose care is classified in the Major/Extreme group are those who have multiple conditions, diseases, or illnesses or inpatients who are much sicker than other inpatients having the same procedure that are classified in the Minor/Moderate group. This report uses APR-DRG version 20.0 for expected deaths, because AHRQ uses this version for risk adjustment in the Inpatient Quality Indicators. This report also uses APR-DRG version 20.0 for average charges.

Note that other Health Data Committee reports, such as the Utah Inpatient Hospital Utilization and

Charges Profile --Hospital Detail report for 2004 and previous years, use APR-DRG Version 15.0.

For details on APR-DRG, see

http://solutions.3m.com/wps/portal/3M/en_US/3MHIS/HealthInformationSystems/products-services/product-list/apr-drg-classification/

☐ Expected Use Percentage

Expected use percentage is the number of cases expected per 100 patients that had a certain procedure among similar patients nationwide. Expected use percentage adjusts for the patients' age, gender and/or how ill the patients are. For example, in the health care consumer report series a facility's first-time Cesarean birth expected use percentage is the number of women expected to have a first-time Cesarean birth per 100 women giving birth among similar patients in the most recent Health Care Cost and Utilization Project (HCUP) State Inpatient Databases. The State Inpatient Databases represent about 90% of all inpatients nationwide. For some indicators, the expected use rate is per 1,000 patients with a certain condition or procedure. For more information on the AHRQ Inpatient Quality Indicators, see www.qualityindicators.ahrq.gov/downloads/iqi/iqi_guide_v31.pdf.

The gallbladder removal report includes only actual rate for Utah overall and each facility and the national laparoscopic gallbladder removal percentage (the Utah overall expected rate), as the range of facility expected rates is relatively narrow.

Excluding Outlier Cases from Calculating Facility Average Charges

Some patients have exceptionally low or high lengths of stay or total facility (hospital) charges. A facility's charges can be affected by just a few unusually long (or short) or expensive (or inexpensive) cases. These high or low values could be a result of coding or data submittal errors, particularly in length of stay, total charges, or data elements that affect APR-DRG assignments. Other reasons for exceptionally low charges could be due to death or transfer to another facility. Exceptionally high charges could be due to a catastrophic condition. Whatever the reason, these values, referred to as "outliers," distort the averages and were excluded from calculations. High charge outliers (facility) are defined in the healthcare consumer reports as values above 2.5 standard deviations from the state mean for each of the four levels of severity of illness for each APR-DRG. Means and standard deviations are APR-DRG specific and calculated on a statewide basis for a specific calendar year. For this report, the high outlier cases for both charge and length of stay are excluded from calculation of facility inpatient average charges.

High outlier cases are not excluded from outpatient average charges.

Facility Charge is Used for the Consumer's Reports

The Utah Hospital Discharge Database contains two types of charge summary information:

- (1) Total Charges - Sum of all charges included in the billing form, including facility charges and professional fees and patient convenience items. This is different from *payment* received by the facility or *cost* of treatment. Cost of treatment can include additional care after the patient leaves the facility.
- (2) Facility Charges - Sum of all charges related to using a facility. Facility charge is calculated by subtracting professional fees and patient convenience item charges from total charge.

Payment received by the facility may be less than the total charges billed for the patient's facility stay due to contractual agreements with the insurance plans and/or charity/hardship programs available.

Average Charge:

This is the calculated average for all the services for which patients in a particular severity of illness group (one of two groups) were billed as the facility charges at a particular facility for a given condition or procedure. The average was calculated by adding the facility charges for all the services billed at that facility for a given condition or procedure and then dividing by the total number of patients in this severity of illness group for that condition or procedure.

The method of calculating the average facility charge is identical to the method used in the HDC's standard report: Utah Hospital Utilization and Charge Profile -- Hospital Details, Table ST 1-3. In other words, both publications report average facility charges at APR-DRG and patient severity of illness level (one of four levels) without high outliers.

The method of calculating the average total charge is the same, except that it includes charges in addition to the facility charges, such as the surgeon's and the anesthesiologist's fees.

Charge tables for inpatients report average facility charges. Charge tables for outpatients report average total charges.

Sources of Quality and Safety Indicators

In compliance with SB 132, the Senate Bill for the Health Care Consumer's Report, the Utah Health Data Committee adopts "nationally recognized standards" for its public reporting on quality and safety. The federal government's agency in charge of health care quality, the Agency of Healthcare Research and Quality (AHRQ) has developed a set of Quality Indicators derived from facility discharge data. Carolyn M. Clancy, M.D., Director of the federal Agency for Healthcare Research and Quality (AHRQ) has saluted Utah's efforts. She said, "AHRQ views public reporting as one important strategy to advance the quality improvement agenda in health care," Dr. Clancy added, "Evidence shows that publicly reporting performance by specific facilities is a key element that promotes enhanced patient care."

Inpatient Quality Indicators (IQIs) and Patient Safety Indicators (PSIs)

These indicators were developed by the Agency for Healthcare Research and Quality (AHRQ) based on inpatient facility discharge data. Although facility discharge data do have some limitations, research has shown that IQIs and PSIs may serve as proxies for utilization, quality, or patient outcomes. AHRQ IQI and PSI definitions and analytical methods were used to calculate the utilization and quality/safety indicators in this report. For more detailed information, go to www.qualityindicators.ahrq.gov/

This report includes one of the AHRQ IQIs for gallbladder removal inpatients, a utilization indicator. Currently these Indicators cannot be used for outpatients.

Definitions and Codes for Each Indicator

Following pages are selected from “AHRQ Quality Indicators—Guide to Inpatient Quality Indicators: Quality of Care in Hospitals—Volume, Mortality, and Utilization. Rockville, MD: Agency for Healthcare Research and Quality, 2002. Version 3.0 (February 20, 2006).

Laparoscopic Cholecystectomy Rate (IQI 23)

Surgical removal of the gallbladder (cholecystectomy) performed with a laparoscope has been identified as an underused procedure [in the 1990s]. Laparoscopic cholecystectomy is associated with less morbidity in less severe cases.

Relationship to Quality	Laparoscopic cholecystectomy is a new technology with lower risks than open cholecystectomy (removal of the gallbladder). Higher rates represent better quality.
Benchmark	State, regional, or peer-group average.
Definition	Number of laparoscopic cholecystectomies per 100 cholecystectomies.
Numerator	Number of laparoscopic cholecystectomies (any procedure field) among cases meeting the inclusion and exclusion rules for the denominator.
Denominator	<p>All discharges, age 18 years and older, with any procedure code of cholecystectomy in any procedure field.</p> <p>Include only discharges with uncomplicated cases: cholecystitis or cholelithiasis in any diagnosis field.</p> <p>Exclude cases:</p> <ul style="list-style-type: none"> • MDC 14 (pregnancy, childbirth, and puerperium) • MDC 15 (newborns and other neonates)
Type of Indicator	Provider Level, Procedure Utilization Indicator

Summary of Evidence

Cholecystectomy—surgical removal of the gallbladder—is now performed with a laparoscope in about 75% of uncomplicated cases.¹⁸³ This indicator has a high percentage of variation attributable to providers. According to the literature, laparoscopic cholecystectomy may need to be adjusted for clinical severity, age, and other factors, because the procedure may be contraindicated for some patients, and others may not be clinically severe enough to qualify for cholecystectomy at all. Too many procedures in patients without appropriate clinical indications may artificially inflate the laparoscopic cholecystectomy rate without improving quality.

Limitations on Use

Up to one-half or more of all cholecystectomies are performed on an outpatient basis, and providers should incorporate outpatient data if possible when interpreting this indicator. Additional bias may result from clinical differences not identifiable in administrative data, so supplemental risk adjustment using other clinical data may be desirable. As a utilization indicator, the construct validity relies on the actual appropriate use of procedures in hospitals with high rates, which should be investigated further.

Details

Face validity: Does the indicator capture an aspect of quality that is widely regarded as important and subject to provider or public health system control?

Laparoscopic cholecystectomy is associated with less postoperative pain, lower patient-controlled morphine consumption, better postoperative pulmonary function and oxygen saturation, and quicker return to limited activity.^{184 185}

Laparoscopic cholecystectomy requires more technical skill than the open approach. Therefore, a higher rate for this procedure (as a proportion of all cholecystectomies) suggests that a hospital can rapidly achieve proficiency in up-to-date treatment methods.

Precision: Is there a substantial amount of provider or community level variation that is not attributable to random variation?

According to the literature, cholecystectomies are relatively common, so moderately precise estimates of differences in laparoscopic use can be obtained. Based on empirical evidence, this indicator is very precise, with a raw provider level mean of 66.2% and a substantial standard deviation of 19.2%.¹⁸⁶ Relative to other indicators, a higher percentage of the variation occurs at the provider level, rather than the discharge level. The signal ratio (i.e., the proportion of the total variation across providers that is truly related to systematic differences in provider performance rather than random variation) is high, at 89.1%, indicating that the observed differences in provider performance likely represent true differences.

Minimal bias: Is there either little effect on the indicator of variations in patient disease severity and comorbidities, or is it possible to apply risk adjustment and statistical methods to remove most or all bias?

As surgeons become more experienced in laparoscopic cholecystectomies, they are likely to perform the procedure on more difficult patients. In addition, higher risks of complications are associated with older age and the presence of common bile duct stones.¹⁸⁷ Patient referral patterns and other selection factors

may lead to substantial differences in laparoscopy rates (as a proportion of all cholecystectomies) across hospitals. Empirical results show that age and sex adjustment does seem to disproportionately impact hospitals in the low extreme relative to those in the high extreme.

Use of inpatient data could be substantially biasing, in that it eliminates those cholecystectomies performed on an outpatient basis, most of which are likely to be laparoscopic.

Construct validity: Does the indicator perform well in identifying true (or actual) quality of care problems?

According to the literature, there is no evidence that hospitals that use the laparoscopic approach more frequently provide better quality of care, based on other measures.

Fosters true quality improvement: Is the indicator insulated from perverse incentives for providers to improve their reported performance by avoiding difficult or complex cases, or by other responses that do not improve quality of care?

One concern with this indicator is that the advent of laparoscopic surgery has led to a substantial increase in the overall cholecystectomy rate, especially involving uncomplicated and elective patients.¹⁸⁸ Another concern is that the “optimal” rate for this procedure has not been defined, and incentives to increase use may have negative consequences if local physicians lack appropriate training and expertise.

Prior use: Has the measure been used effectively in practice? Does it have potential for working well with other indicators?

Laparoscopic cholecystectomy was included in the original HCUP QI indicator set.

¹⁸³ Southern Surgeons Club. A prospective analysis of 1518 laparoscopic cholecystectomies. NEJM 1991;324:1073-1078.

¹⁸⁴ McMahon AJ, Russell IT, Baxter JN, et al. Laparoscopic and minilaparotomy cholecystectomy: a randomised trial [see comment]. Lancet 1994;343(8890):135-8. ¹⁸⁵ McMahon AF, Russell IT, Ramsay G, et al. Laparoscopic

¹⁸⁵ McMahon AF, Russell IT, Ramsay G, et al. Laparoscopic and minilaparotomy cholecystectomy: a randomized trial comparing postoperative pain and pulmonary function. Surgery 1994;115(5):533-9.

¹⁸⁶ Nationwide Inpatient Sample and State Inpatient Databases. Healthcare Cost and Utilization Project. Agency for Healthcare Research and Quality, Rockville, MD.
<http://www.ahrq.gov/data/hcup>

¹⁸⁷ Jatzko GR, Lisborg PH, Perl AM, et al. Multivariate comparison of complications after laparoscopic cholecystectomy and open cholecystectomy. Ann Surg 1995;221(4):381-6.

¹⁸⁸ Escarce JJ, Chen W, Schwartz JS. Falling cholecystectomy thresholds since the introduction of laparoscopic cholecystectomy. JAMA 1995;273(20):1581-5.

Continued next page

Laparoscopic Cholecystectomy Rate (IQI 23)
<p>Numerator: Number of laparoscopic cholecystectomies (any procedure field) among cases meeting the inclusion and exclusion rules for the denominator.</p> <p>ICD-9-CM laparoscopic cholecystectomy procedure code: 5123 LAPAROSCOPIC CHOLE</p>
<p>Denominator: All discharges, age 18 years and older, with cholecystectomy in any procedure field.</p> <p>ICD-9-CM cholecystectomy procedure codes: 5122 CHOLECYSTECTOMY 5123 LAPAROSCOPIC CHOLE</p> <p>Include: Only discharges with uncomplicated cases: cholecystitis and/or cholelithiasis in any diagnosis field. ICD-9-CM uncomplicated cholecystitis and/or cholelithiasis diagnosis codes: 57400 CHOLELITH W AC CHOLECYS 5750 ACUTE CHOLECYSTITIS 57401 CHOLELITH/ AC GB INF-OBST 5751 CHOLECYSTITIS NEC OCT96- 57410 CHOLELITH W CHOLECYS NEC 57510 CHOLECYSTITIS NOS OCT96- 57411 CHOLELITH/GB INF NEC-OBS 57511 CHRON CHOLECYSTITIS OCT96- 57420 CHOLELITHIASIS NOS 57512 AC/CHR CHOLECYSTITIS OCT96- 57421 CHOLELITHIAS NOS W OBSTR</p> <p>Exclude cases: • MDC 14 (pregnancy, childbirth, and puerperium) • MDC 15 (newborns and other neonates)</p>

END IQI 23

AHRQ Rates

The AHRQ Quality Indicators Software outputs several rates. The AHRQ Quality Indicators e-Newsletter, June 2005, provided guidance to users for appropriate rates to use for specific purposes.

QI Tips: Using Different Types of QI Rates

Which rate should you use, the observed (actual), expected, risk adjusted, and/or smoothed rates?

Here are some guidelines.

If the user's primary interest is to identify cases for the health care provider's internal follow-up and quality improvement, then the **observed rate** would help to identify them. The observed rate is the raw rate generated by the QI software from the data the user provided. Areas for improvement can be identified by the magnitude of the observed rate compared to available benchmarks and/or by the number of patients impacted.

Additional breakdowns by the default patient characteristics used in stratified rates (e.g., age, gender, or payer) can further identify the target population. Target populations can also be identified by user-defined patient characteristics supplemented to the case/discharge level flags. Trend data can be used to measure change in the rate over time.

Another approach to identify areas to focus on is to compare the observed and **expected rates**. The expected rate is the rate the provider would have if it performed the same as the reference population given the provider's actual case-mix (e.g., age, gender, APR-DRG and comorbidity categories).

If the observed death rate is higher than the expected rate (i.e., the ratio of observed/expected is greater than 1.0, or observed minus expected is positive), then the implication is that the provider had more deaths than the reference population for that particular indicator. Users may want to focus on these indicators for quality improvement.

If the observed death rate is lower than the expected rate (i.e., the ratio of observed/expected is less than 1.0, or observed minus expected is negative), then the implication is that the provider had fewer deaths than the reference population. Users may want to focus on these indicators for identifying best practices.

If the observed use rate is higher than the expected rate, then the implication is that the provider had more patients with the specified procedure than the reference population for that particular indicator. If the observed use rate is lower than the expected rate, then the implication is that the provider had fewer patients with the specified procedure than the reference population for that particular indicator.

Users can also compare the expected rate to the **population rate** reported in the detailed evidence section of the IQI, PQI, or PSI Guide to determine how their case-mix compares to the reference population. If the population rate is higher than the expected rate, then the provider's case-mix is less severe than the reference population. If the population rate is lower than the expected rate, then the provider's case-mix is more severe than the reference population.

AHRQ uses this difference between the population rate and the expected rate to "adjust" the observed rate to account for the difference between the case-mix of the reference population and the provider's case-mix. This is the provider's **risk-adjusted rate**.

If the provider has a less severe case-mix, then the adjustment is positive (population rate > expected rate) and the risk-adjusted rate is higher than the observed rate. If the provider has a more severe case-mix, then the adjustment is negative (population rate < expected rate) and the risk-adjusted rate is lower than the observed rate. The risk-adjusted rate is the rate the provider would have if it had the same case-mix as the reference population given the provider's actual performance.

Finally, users can compare the risk-adjusted rate to the **smoothed** or "reliability-adjusted" rate to determine whether this difference between the risk-adjusted rate and reference population rate is likely to remain in the next measurement period. Smoothed rates are weighted averages of the population rate and the risk-adjusted rate, where the weight reflects the reliability of the provider's risk-adjusted rate.

A ratio of (smoothed rate - population rate) / (risk-adjusted rate - population rate) greater than 0.80 suggests that the difference is likely to persist (whether the difference is positive or negative). A ratio of less than 0.80 suggests that the difference may be due in part to random differences in patient characteristics (patient characteristics that are not observed and controlled for in the risk-adjustment model). In general, users may want to focus on areas where the differences are more likely to persist.

From <http://qualityindicators.ahrq.gov/newsletter/2005-June-AHRQ-QI-Newsletter.htm#Headline3> (Accessed on January 18, 2006).

Limitations

Many factors affect a facility's performance on quality and safety measures as well as charges. Such factors include the facility's size, the number of cases with a specified condition or procedure, available specialists, teaching status and especially how ill the facility's inpatients are. Facilities that treat high-risk (very ill) patients may have higher percentages of deaths and higher charges than facilities that transfer these patients. Facilities that treat patients with do not resuscitate (DNR) orders or other terminally ill patients receiving palliative care (comfort care) may have higher percentages of deaths. Facilities may report patient diagnosis codes differently which could impact the comparison of quality measurement among facilities. The quality indicators adjust for how ill each facility's inpatients are, but the adjustment may not capture the full complexity of the patient's condition. The Utah Hospital Discharge Database includes up to nine diagnoses and up to six procedures for each patient. Some patients have additional diagnoses and procedures that are not included in this database. As a result, the measures of patient illness may not be complete. Outpatients usually are less ill and have a less complex medical history than inpatients and require simple, straightforward procedures and stays in the facility of less than 24 hours. See Glossary for more about specific indicators.

The average charge shown in this report differs from "costs," "reimbursement," "price" and "payment." Many factors will affect the cost for your facility stay, including whether you have health insurance, the type of insurance and the billing procedures at the facility. This report

excludes outlier (unusually high) charge cases and length of stay cases from the calculation of average charge (see [Glossary](#)).

This report shows total billed facility charges for inpatients and total billed charges for outpatients. Facility charges may not include additional charges, such as the surgeon's and anesthesiologist's fees. Billed charges are to be used as only one indicator of facility performance. All patients, or insurance plans, do not pay the same amount for similar treatments, supplies, services, and procedures, even though they may be billed the same amount. Different payers have varied arrangements with each facility for payment. Facilities offer a variety of contracts, many with discount arrangements based on volume. Because of this, the data reflects pre-contractual prices for hospitalization and not the actual payment between providers and payers. Each patient may have additional charges from physicians, such as the surgeon and the anesthesiologist.

This report can be used to compare broad measures of utilization for all facilities, but more detailed data are needed to look at specific performance comparisons between facilities. This information serves as an important first step toward consumers' taking a more active role in health care decision-making.

The price of facility services, while important, is not the only consideration in making inpatient facility decisions. Other factors that may influence facility services, including: the type of condition treated, the physicians who practice at the facility, and the insurance company's managed care policies. The health plan subscriber should be familiar with his or her health plan long before facility care is needed. For additional information on managed care performance, please contact the Office of Health Care Statistics at (801) 538-7048.

Kinds of Gallbladder Removal Included in This Report

This report includes some but not all kinds of gallbladder removal among adult facility inpatients (age 18 years and older).

Rate of Laparoscopic Gallbladder Removal

The report's quality indicator, AHRQ IQI 23 Laparoscopic Cholecystectomy, includes ICD-9-CM procedure code 51.23 (laparoscopic gallbladder removal) and ICD-9-CM procedure code 51.22 (gallbladder removal or open gallbladder removal) on inpatients with uncomplicated cholecystitis (inflammation of the gallbladder) and/or cholelithiasis (gallstones) (see Definitions and Codes for Each Indicator in this document. The actual percentage is the number of laparoscopic gallbladder removals divided by the number of laparoscopic and open gallbladder removals. Gallbladder removals that begin as laparoscopic and finish as open surgery are considered to be open gallbladder removals.

Average Facility Charge

The average facility charge in this report is for inpatients in the All Patient Refined Diagnosis Related Group 263 (APR-DRG 263) Laparoscopic Cholecystectomy (ICD-9-CM procedure code 51.23) and APR-DRG 262 Cholecystectomy Except Laparoscopic

(or ICD-9-CM procedure code 51.22 which this report calls open gallbladder removal). Gallbladder removals that began as laparoscopic and became open surgeries are considered to be open gallbladder removals.

Because outpatients do not have APR-DRGs, outpatients do not have levels of severity of illness. This report included only outpatients with ICD-9-CM procedure codes 51.23. A small number of outpatients had code 51.22 (38 discharges, compared to 5,704 discharges with the laparoscopic code). These discharges have been excluded from the analyses in this report.